

**July 2004**  
**FACT SHEET**  
**Mountain States Petroleum Corporation**  
**English Lease Boundary Butte Field**  
**NPDES Permit No. UT0020133**

**I. INTRODUCTION**

The existing National Pollutant Discharge Elimination System ("NPDES") permit was issued to Mountain States Petroleum Corporation ("MSPC") English Lease Boundary Butte Field in San Juan County in Utah, on July 2, 1990 and expired on September 30, 1994. On September 14, 1993, Mountain States initiated a process to renew its permit for discharge of wastewater to waters of the United States. The permit was not renewed to date, and the July 2, 1990 permit remains in effect.

MSPC has contracted with RIO Petroleum in Amarillo, Texas, to manage the day-to-day oil and gas production operations. On February 6, 2004, MSPC submitted a new NPDES permit application for its Oil and Natural Gas Exploration and Extraction operations.

Applicant address: Mountain States Petroleum Corporation  
Oil and Natural Gas Exploration and Extraction  
English Lease Boundary Butte, Utah  
P.O. Box 51166  
Amarillo, TX 79159-1166

Facility contact: John Walker  
(806) 356-8033

**II. BACKGROUND**

The Mountain States Petroleum Corporation operates the Battery No. 1 and Battery No. 3 on the English Lease within the Boundary Butte oil field, which is located on the Navajo Nation in southeastern Utah. The English Lease was previously owned by Hondo Oil and Gas Company. MSPC separates crude oil from waste water produced from the Coconino Formation. The water is separated from the oil at both batteries using heat treaters then allowed to settle in a series of settling ponds before being discharged into an unnamed tributary where it flows approximately 10.5 miles to the Chinle Wash, a tributary to the San Juan River.

Batteries No. 1 and No. 3 have separate discharge outfalls. Wastewater discharge from Battery No. 1 is a continuous discharge with an approximate design flow of 0.08 million gallons per day (mgd) at Discharge Outfall 001. Battery No. 3 has a intermittent discharge with a maximum flow of 0.04 mgd at Discharge Outfall 002. MSPC indicates that its discharged water is being used by Indian people as a source of water for their livestock.

### **III. REGULATORY BASIS FOR NPDES PERMIT-EFFLUENT LIMITATIONS**

Pursuant to the Water Quality Act of 1987 and the "EPA Policy for the Administration of Environmental Programs on Indian Reservations" (November 8, 1987), EPA will work directly with Indian Tribal governments on a one-to-one basis. This conforms with the Federal Indian Policy of January 24, 1983. The Navajo Nation has received Treatment as a State ("TAS") for Section 106 of the Clean Water Act ("CWA".) They have applied but have not received TAS for the purposes of Section 303 of the CWA. Section 106 grant money was used to develop water quality standards and use designations, which must be approved under Section 303 by EPA Region 9. The Navajo Nation completed and adopted the Navajo Nation Surface Water Quality Standards ("NNSWQS") on September 7, 1999 and promulgated in November 1999. The NNSWQS, along with a TAS application under Section 303, was submitted to EPA in November 1999. A draft revision to the NNSWQS made on April 17, 2003 is awaiting review and approval by the Navajo Nation Council. In the interim until the NNSWQS are approved by EPA, those water quality standards will be used on a best professional judgment basis for purposes of developing water quality based effluent limitations.

### **IV. BASIS OF PROPOSED PERMIT REQUIREMENTS**

The proposed discharge limitations are based on:

- A. Effluent guidelines for the onshore segment of the Oil and Gas Extraction Point Source Category (40 CFR Part 435, Subpart E), the Colorado River Basin Salinity Policy, and the State of Utah Wastewater Disposal Regulations. EPA used these regulations and its best professional judgment ("BPJ") to develop limits for this facility.
- B. NNSWQS, which was promulgated by the Navajo Nation Council in November 1999.

### **V. DESIGNATED USES OF THE RECEIVING WATER**

The designated uses of the receiving water (San Juan River and its tributaries) as defined by the State of Utah Department of Health are as follows:

- 1C - Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Department of Health;
- 2B - Protected for boating, water skiing, and similar uses, excluding recreational bathing (swimming);
- 3B - Protected for warm water species of game, fish, and other warm water aquatic life, including the necessary aquatic organisms in their foodchain; and,
- 4 - Protected for agricultural uses including irrigation of crops and stock watering.

## **VI. DETERMINATION OF EFFLUENT LIMITATIONS, MONITORING AND REPORTING REQUIREMENTS**

### **A. Flow Rates**

Under the proposed permit, there are no flow limits but the flow must be monitored and reported. The monitoring frequency is once per month, same as the previous permit.

### **B. Five-Day Biochemical Oxygen Demand (BOD<sub>5</sub>) and Total Suspended Solids (TSS)**

The BOD<sub>5</sub> and TSS limitations of 25 mg/L monthly average and 35 mg/L weekly average, respectively, are based on the State of Utah Wastewater Disposal Regulations. The monitoring frequency is once per quarter. These limits are consistent with those in the previous permit.

Under 40 CFR Section 122.45(f), mass limits are required for BOD<sub>5</sub>. Based upon the design flow of 0.08 MGD at Battery No. 1 (Discharge Outfall 001), the mass limits for BOD<sub>5</sub> and TSS are based on the following calculations:

#### **Monthly Average**

$$\frac{0.08 \text{ MG}}{\text{day}} \times \frac{25 \text{ mg}}{1} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 7.5 \text{ kg/day}$$

#### **Weekly Average**

$$\frac{0.08 \text{ MG}}{\text{day}} \times \frac{35 \text{ mg}}{1} \times \frac{8.345 \text{ lb/MG}}{1 \text{ mg/l}} \times \frac{0.45 \text{ kg}}{\text{lb}} = 10.5 \text{ kg/day}$$

Using the design flow of 0.04 MGD at Battery No. 3 (Discharge Outfall 002), the monthly and weekly mass limits for BOD<sub>5</sub> are 3.75 kg/day and 5.26 kg/day, respectively. TSS limits are identical to those of BOD<sub>5</sub>.

### **C. Oil and Grease (O&G)**

The oil and grease limitation of 35 mg/L set forth in 40 CFR Part 435, Subpart E [Agricultural and Wildlife Water Use Subcategory] is not applied in the proposed permit. Instead, the 10 mg/L limitation in MSPC's previous permit is being used in accordance with EPA Regional Anti-Backsliding Policy. The monitoring frequency is once per month. These limits are consistent with those in the previous permit.

D. Total Dissolved Solids (TDS)

The TDS limits for both these discharge outfalls are well below the 1 ton/day maximum guideline as set by the Colorado River Basin Salinity Policy. The TDS limitation for the permit is based on present and past performances of the facility. The monitoring frequency is once per quarter. These limits are consistent with those in the previous permit.

E. pH

The proposed permit requires that effluent pH not fall below 6.5 or above 9.0 standard pH units, identical to those in the previous permit. They are based on Utah's Wastewater Disposal Regulations and are consistent with the Navajo Nation surface water quality standards. The monitoring frequency is once per quarter.

**VII. REPORTING**

The proposed permit requires discharge data obtained during the previous three months to be summarized and reported monthly. If there is no discharge for the month, indicate "Zero Discharge." These reports are due January 28, April 28, July 28, and October 28 of each year. Duplicate signed copies of these, and all other reports required herein, shall be submitted to the Regional Administrator, the Navajo Nation EPA, and Utah Department of Health--Bureau of Water Pollution Control.

**VIII. GENERAL STANDARDS**

The proposed permit sets general standards that are narrative water quality standards contained in the Navajo Nation Surface Water Quality Standards, Section 203, as well as that contained in Utah's Standards of Quality for Waters of the State. These general standards are set forth in Section B. (General Discharge Specifications) of the permit.

**IX. PERMIT REOPENER**

At this time, there is no reasonable potential to establish any other water quality-based limits. Should any monitoring indicate that the discharge causes, has the reasonable potential to cause, or contributes to excursions above a water quality criterion, the permit may be reopened for the imposition of water quality-based limits and/or whole effluent toxicity limits. This permit may be modified, in accordance with the requirements set forth at 40 CFR '122.44 and '124.14, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any new EPA-approved water quality standards.

**X. ENDANGERED SPECIES ACT**

EPA is currently requesting an updated list of threatened or endangered species from the U.S. Fish and Wildlife Service and the Navajo Nation Heritage Office, regarding this permit action. While EPA believes that discharge in compliance with this permit will have no effect on threatened or endangered, and is proposing to issue the permit at this time, EPA may decide that

changes to the permit may be warranted based on receipt of new information.

#### **XI. WRITTEN COMMENTS**

Persons who wish to comment upon, object to the proposed action, or request a public hearing pursuant to 40 CFR '124.11 should submit their comments and requests in writing within thirty (30) days from the date of the Public Notice, either in person or by mail to:

U.S. Environmental Protection Agency, Region IX  
CWA Standards and Permits Office (WTR-5)  
Attn: Linh Tran  
75 Hawthorne Street  
San Francisco, CA 94105  
Telephone: (415) 972-3511

#### **XI. INFORMATION AND COPYING**

The Administrative Record, which contains the draft NPDES permit, the fact sheet, comments received, and other relevant documents, is available for review and may be obtained by calling or writing to the above address.

All comments or objections received within thirty (30) days from the date of the Public Notice will be retained and considered in the formulation of the final determination regarding the permit issuance.

#### **XII. PUBLIC HEARING**

When public interest warrants, the Regional Administrator shall hold a public hearing and such notice of hearing shall be issued by public notice at least thirty (30) days prior to the hearing date. A request for a public hearing must be in writing and must also state the nature of the issue proposed to be raised in the hearing.